AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A method for the heat treatment of fine-grained solids wherein the solids are heated to a temperature of 150 to 1000°C in a fluidized bed reactor, comprising introducing a first gas or gas mixture from below through a gas supply tube into a mixing chamber of the reactor located above an annular stationary fluidized bed, the stationary annular fluidized bed being fluidized by supplying fluidizing gas, wherein the gas flowing through the gas supply tube entrains solids from the fluidized bed into the mixing chamber when passing though the upper orifice region of the gas supply tube, and adjusting the gas velocities of the first gas or gas mixture as well as of the fluidizing gas for the annular fluidized bed ~~and wherein the gas velocities of the first gas or gas mixture as well as of the fluidizing gas are adjusted~~ such that the particle Froude numbers in the gas supply tube are between 1 and 100, in the annular fluidized bed between 0.02 and 2 and in the mixing chamber between 0.3 and 30.

2. (previously presented) The method as claimed in claim 1, wherein the particle Froude number in the gas supply tube is between 1.15 and 20.

3. (previously presented) The method as claimed in claim 1 wherein the particle Froude number in the annular fluidized bed is between 0.115 and 1.15.

4. (previously presented) The method as claimed in claim 1, wherein the particle Froude number in the mixing chamber is between 0.37 and 3.7.

5. (currently amended) The method as claimed in claim 1, wherein the bed height of the solids in the reactor is adjusted such that the annular fluidized bed extends beyond the upper orifice end of the gas supply tube [[,]] ~~and wherein solids are constantly introduced into~~

~~the first gas or gas mixture and entrained by the gas stream to the mixing chamber located above the orifice region of the gas supply tube~~.

6. (previously presented) The method as claimed in claim 1, wherein fine-grained solids with a grain size of less than 2 mm are supplied as starting material.

7. (previously presented) The method as claimed in claim 1, wherein hot gas, which is generated in an upstream combustion chamber by burning supplied fuel with an admixture of a gas containing oxygen, is supplied to the reactor via the gas supply tube.

8. (cancelled)

9. (previously presented) The method as claimed in claim 1, wherein air is supplied to the reactor as fluidizing gas.

10. (previously presented) The method as claimed in claim 1, wherein the pressure in the reactor is between 0.8 and 10 bar.

11. (previously presented) The method as claimed in claim 1, wherein, before the heat treatment in the reactor, the solids are suspended, dried and pre-heated in at least one pre-heating stage comprising a heat exchanger and a downstream separator.

12. (previously presented) The method as claimed in claim 1, wherein, after the heat treatment in the reactor, the solids from the annular fluidized bed of the reactor are at least partly supplied to a cooling system which comprises an arrangement of a number of cooling stages connected one after the other.

13. (previously presented) The method as claimed in claim 12, wherein the solids form in a cooling stage at least one fluidized bed, in which it is cooled by a fluidizing gas or a cooling coil, formed in the fluidized bed, with cooling medium.

14. – 22. (cancelled)

23. (previously presented) The method of claim 1, wherein the gas supply tube is central with regard to the stationary fluidized bed.

24. – 25. (cancelled)